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TECHNOLOGY CENTER 2800

ABSTRACT OF THE DISCLOSURE:

a' An adiabatic charging register circuit including a plurality of n-channel MOSFET's and plurality of p-channel MOSFET's, is operated by a clock signal which has a gradually rising and a gradually falling waveform generated by using a charge recycle power source in which charge supplied to a load is at least partially collected to said charge recycle power source, and following inequality is satisfied;

$$|V_{TN}| + |V_{TP}| \geq VDD$$

where V_{TN} is threshold of an n-channel MOSFET, V_{TP} is threshold of a p-channel MOSFET, and VDD is output voltage of said charge recycle power source.